



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0215; Product Identifier 2018-SW-088-AD]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Leonardo S.p.A. (Leonardo) Model AB139, AW139, AW169, and AW189 helicopters.

This proposed AD was prompted by reports of uncommanded deployment of the emergency flotation system (EFS) due to improper accomplishment of the reset procedure of the shape memory alloy (SMA) inflation system actuation device. This proposed AD would require removal of affected SMA inflation systems and installation of serviceable SMA inflation systems. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://www.leonardocompany.com/en/home>.

You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0215; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

The AD docket contains this AD, the European Union Aviation Safety Agency (previously European Aviation Safety Agency) (EASA) AD, any comments received, and

other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kristi Bradley, Aerospace Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email kristin.bradley@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0215; Product Identifier 2018-SW-088-AD” at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this NPRM.

Discussion

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0208, dated September 20, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an

unsafe condition for certain Leonardo Model AB139, AW139, AW169, and AW189 helicopters. EASA advises that reports were received of uncommanded EFS deployment on Model AW139, AW169, and AW189 helicopters. Results of the subsequent technical investigation revealed that these events may have been caused by the improper accomplishment of the reset procedure of the SMA inflation system actuation device. EASA added that these events may lead to an unstable condition of the SMA inflation system. This condition, if not addressed, could lead to further events of uncommanded EFS deployment, possibly resulting in reduced control of the helicopter.

You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0215.

Related Service Information under 1 CFR Part 51

Leonardo Helicopters has issued Alert Service Bulletin (ASB) No. 139-533, dated August 30, 2018; ASB No. 169-099, dated August 30, 2018; and ASB No. 189-195, dated August 30, 2018. This service information describes procedures for removal of affected SMA inflation systems and installation of serviceable SMA inflation systems (including correcting the SMA inflation system by performing a reset procedure). These documents are distinct since they apply to different helicopter models.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed Requirements of this NPRM

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

The FAA estimates that this proposed AD affects 138 helicopters of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 7 work-hours X \$85 per hour = Up to \$595	\$*	Up to \$595*	Up to \$82,110*

*The FAA has received no definitive data that would enable the FAA to provide parts cost estimates for the actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Leonardo S.p.A.: Docket No. FAA-2020-0215; Product Identifier 2018-SW-088-AD.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Leonardo S.p.A. helicopters identified in paragraphs (c)(1) through (3) of this AD, certificated in any category.

(1) Model AB139 and AW139 helicopters, all serial numbers, equipped with an emergency flotation system (EFS) float assembly having part number (P/N) 3G9560V00332, 3G9560V00432, 3G9560V01432, or 3G9560V01532.

(2) Model AW169 helicopters, all serial numbers, equipped with an EFS float assembly having any part number.

(3) Model AW189 helicopters, all serial numbers, equipped with an EFS float assembly having P/N 8G9560V00331 or 8G9560V00431.

(d) Subject

Joint Aircraft Service Component (JASC) Code 3212, Emergency Flotation Section.

(e) Reason

This AD was prompted by reports of uncommanded deployment of the EFS due to improper accomplishment of the reset procedure of the shape memory alloy (SMA) inflation system actuation device. The FAA is issuing this AD to address uncommanded EFS deployment, which could result in reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

(1) An “affected part” is an SMA inflation system having P/N 3G9560V01052 (Model AB139 and AW139 helicopters), P/N 6F9560V00551 (Model AW169 helicopters), or P/N 8G9560V01751 (Model AW189 helicopters), as applicable, with a serial number specified in Figure 1 to paragraph (g)(1) of this AD except those which have been corrected in accordance with the Accomplishment Instructions of Leonardo Helicopters Alert Service Bulletin (ASB) No. 139-533, dated August 30, 2018 (ASB 139-533); Leonardo Helicopters ASB No. 169-099, dated August 30, 2018 (ASB 169-099); or

Leonardo Helicopters ASB No. 189-195, dated August 30, 2018 (ASB 189-195); as applicable.

Figure 1 to Paragraph (g)(1) – *Affected parts*

Helicopter Model	Affected part serial numbers (s/n)
AB139 and AW139	Up to s/n 1801 inclusive, except s/n 1783 and s/n 1784
AW169	Up to s/n 67 inclusive
AW189	Up to s/n 182 inclusive, except s/n 117

(2) A “serviceable part” is an affected part that has been corrected in accordance with the Accomplishment Instructions of ASB 139-533; ASB 169-099; or ASB 189-195; as applicable; or a part that is not affected.

(h) Removal and Installation

At the applicable compliance time specified in Figure 2 to paragraph (h) of this AD, remove each affected part from the helicopter and install a serviceable part. This may be done in accordance with the Accomplishment Instructions of ASB 139-533; ASB 169-099; or ASB189-195; as applicable.

Figure 2 to Paragraph (h) – *Removal and installation compliance times*

Helicopter Model	Compliance time (after the effective date of this AD)
AB139 and AW139	100 hours time-in-service (TIS)
AW169	45 hours TIS
AW189	

(i) Parts Installation Prohibition

As of the effective date of this AD, no person may install an affected part on any helicopter.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch,

FAA, may approve AMOCs for this AD. Send your proposal to: Kristi Bradley, Aerospace Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, notify your principal inspector or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(k) Related Information

(1) The subject of this AD is addressed in European Union Aviation Safety Agency (previously European Aviation Safety Agency) (EASA) AD 2018-0208, dated September 20, 2018. This EASA AD may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0215.

(2) For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://www.leonardocompany.com/en/home>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

Issued on April 9, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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